

## SYSTEM AND METHOD FOR AUGMENTED THERMAL IMAGERY

### ABSTRACT OF THE DISCLOSURE

5 The present invention provides a system, method, and computer program for generating an image based on thermal data. The invention receives an array of pan band data having units of data in a first resolution, converts the received pan band data into a radiance value, and converts the radiance value into a power value. An array of thermal band data is received that has units of data in a second resolution. The received thermal band data is converted into a temperature value and the resolution of the temperature value is changed to match the resolution of the received pan band data. A color array is generated based on the  
10 received array of the pan band data and the array of the changed thermal band data. The color array includes units having red, green, and blue values. An image is generated based on the generated color array.

